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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/960,605

09/21/2001

Vivian Pecus

4940/1D

5667

33690

7590

08/15/2005

DAVID LOEWENSTEIN
802 KING ST.
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EXAMINER

PHAN, MAN U

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,605

Applicant(s)

PECUS ET AL.

Examiner

Man Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/20/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The application of Pecus et al. for a "Large edge node for simultaneous video on demand and live streaming of satellite delivered content" filed 09/21/2001 has been examined. Claims 1-5 are pending in the application.

Specification

2. Cross References need to be updated.

The disclosure is objected to because of the following informalities: Under cross references to related applications, the co-pending application status needs to be updated. The US utility application should include application number and filing date.

Double Patenting

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain : patent therefor ..." (Emphasis added). Thus, the term "same invention" in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The

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filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37CFR 3.7309.

5. Claims 1-20 are rejected under the judicially created doctrine of double patenting over claims 1-3 of U. S. Co-pending Application No. 09/960,649. This is a provisional double patenting rejection since the conflict claims have not yet been patented.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are equivalent in scope and embodiment. The language of the two claims is equivalent in functioning. The subject matter claimed in the instant application is fully

disclosed in the referenced co-pending application and would be covered by any patent granted on that co-pending application since the referenced co-pending application and the instant application are claiming common subject matter, as follows:

With respect to the specific limitations, claims 1-3 of co-pending application 09/960,649 are equivalent to the pending claims 1-5 of Application '605 respectively for a edge node that receives content from a NOC via a satellite link and distributes it to a last mile service provider. All of the structural elements of the co-pending claims are present in the pending claims, defined with either identical or equivalent language. Additionally, the functional language, although varying in syntax, reflects identical operation, purpose, application, and environment.

The differences between the claims are the use of a load balancer hardware, and a single equipment rack housing for the hardware. However, the use of load balancer for balancing Internet traffic in the data center are well known in the art in terms of its basic building blocks and their interconnectivity via virtual local area networks (VLANs). The load balancers are used to allocate traffic among the application servers and routes traffic based on open connections and processing availability. It was obvious that the media server, the public VLAN, the private VLAN, the VPN, the router, and the load balancer exist in a single equipment rack as a design choice. Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other co-pending application. It has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. In re Karlson, 136 USPQ 184 (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (Bd. App. 1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

Claim Rejections - 35 USC ' 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajakarunayake et al. (US#6,810,413) in view of Lahr (US#2001/0029525).

With respect to claims 1-3, Rajakarunayake et al. (US#6,810,413) and Lahr (US#2001/0029525) disclose a novel system and method for delivering multimedia data to Internet users at high bandwidths using satellite communication links, according to the essential

features of the claims. Rajakarunanayake et al. (US#6,810,413) discloses in Figs. 1 & 2 block diagrams illustrated the system for delivery of Internet content to enterprise such as ISPs, and users in corporate entities using satellite technology. As shown, the Internet content delivery system 50 generally comprises a central uplink facility 56 for uplinking the Internet content received from a content server 52 via the Internet 54 to a satellite 68, an ISP facility 70 (CP) for receiving the Internet content from the satellite 68 and/or directly via the Internet, and an end user subscriber premise 90 which can access the Internet 54 via the ISP 70. The central uplink facility 56 (NOC) generally comprises a router 58, an uplink server 60, and a satellite uplink 62. The router 58 of the central uplink facility 56 accesses desired Internet content via the Internet 54 and transmits the Internet content to the satellite 68 via the uplink server 60 and the satellite uplink 62. Alternatively or additionally, the content server 52 may communicate to the central uplink facility 56 when the Internet content is to be updated, such as when the content at the content server 52 changes. The satellite 68 in turn broadcasts the Internet content to subscribers of the satellite service, such as to the ISP facility 70. The ISP facility 70 generally comprises a satellite downlink 74 for receiving signals from the satellite 68, a downlink receiver/adaptor 76, and an ISP downlink server or cache 78. The downlink receiver/adaptor 76 processes the signals received by the satellite downlink 74 and forwards the processed Internet content signals to the ISP downlink server 78 which caches the Internet content. In particular, the downlink receiver/adaptor 76 generally provides the Layer 1 and Layer 2 termination of the satellite link as well as the adaptation of that data to and from a traditional terrestrial network. The ISP 70 may also access desired Internet content via wire or terrestrial means. Currently, much of the Internet content is provided by the content server 52 via the Internet 54 over

various wire links 82 between the Internet 54 and a router 84, for example, of the ISP 70.

Although not explicitly shown, the ISP 70 may also cache particular Internet content accessed via wire means. The end user at the end user subscriber premise 90 requests and receives Internet content via the ISP 70 to which the end user subscribes. The end user subscriber premise 90 typically includes a computer 92 and a client premise equipment (CPE) 94, such as a DSL, cable, or a dial-up modem, for example. The CPE 94 is linked to the remote access device or equipment 80 of the ISP 70 via wire links 86. The remote access equipment 80 may be a dial-up RAS (Remote Access Service for voice band modems and ISDN), a DSLAM (DSL access multiplexer for DSL), cable head end equipment (for cable networks), or other remote access networking equipment, including aggregation and service management devices such as those provided by companies such as Redback Networks. The remote access equipment 80 of the ISP 70 may determine whether to provide the desired Internet content to the end user with the cached content received from the satellite 68 or to provide the desired Internet content to the end user with the content received via wire links 82. Specifically, the end user's request for Internet content is received by the remote access device or equipment 80 via the wire links 86. The remote access device or equipment 80 accesses the desired Internet content either from the cached content received from the satellite 68 or via the wire links 82 and router 84. The remote access device or equipment 80 then delivers the Internet content to the CPE 94 and the computer 92 at the end user subscriber premise 90 via the wire links 86 (Col. 5, lines 4 plus and Col. 12, lines 53 plus).

In the same field of endeavor, Lahr (US#2001/0029525) discloses an edge node that receives content from a Network Operations Center (NOC) via a satellite link and distributes it

to a last mile service provider [servers located at the edge of the Internet, a private network, a NOC, satellite, 0020,0021, 0022], the edge node comprising: one or more media servers (media servers, 0041); a private Virtual Local Area Network (VLAN) [a private network 0020], connected to the media servers, where the private VLAN receives content from the satellite link and distributes it to the media servers [satellite transceiver deliver live stream to all servers, 0023], and a public VLAN (i.e.: Internet), connected to the media servers, that transmits the content from the media servers to a last mile service provider [Internet Service Providers, 0028, Internet content Providers, 0032]. Lahr further disclose where at least one of the media servers is configured to serve live content (i.e., a live stream, live content); at least one of the media servers is configured to serve non-live content [live content, 0023,0032,0037,0038,0041]. Lahr discloses a Virtual Private Network (VPN) connecting the public VLAN network to the private VLAN [a private network, 0020], and the VPN allows access to the private VLAN from a remote location using a VPN [a private network, 0020].

Regarding claims 4-5, they are method claims corresponding to the apparatus claims 1-3 above. Therefore, claims 4-5 are analyzed and rejected as previously discussed with respect to claims 1-3.

9. Claims 1-5 of this application conflict with claims 1-8 of Application No. 09/960,637, and claims 1-9 of Application 09/960,843. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either

cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP. 822.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Pecus et al. (US#6,886,029) is cited to show the end to end simulation of a content delivery system.

The Adrangi (US#6,651,141) is cited to show the system and method for populating cache servers with popular media contents.

The Rowe et al. (US#6,792,615) is cited to show the encapsulated, streaming media automation and distribution system.

The Baker et al. (US#5,583,561) is cited to show the multi-cast digital video data server using synchronization groups.

The Dawson et al. (US#5,594,490) is cited to show the system for distributing video/audio files from central location to a plurality of cable headends.

The Monteiro et al. (US#5,778,187) is cited to show the multicasting method and apparatus.

The Katsself et al. (US#6,768,722) is cited to show the Systems and methods for managing multiple communications.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

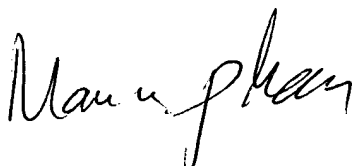
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

08/10/2005.



MAN U. PHAN
PRIMARY EXAMINER